

Public Health Reports

Vol. 66 • JANUARY 19, 1951 • No. 3

Statistical Studies of Heart Disease

VIII. Mortality from Heart Disease among Negroes as Compared with White Persons

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Diseases of the heart (all forms) is the leading cause of death among both the Negro and white population in the United States. Among the Negroes, recorded mortality from the second leading cause, nephritis, was only half as high in 1940 (1).

For both races recorded mortality from heart disease has shown an upward trend from 1920 to 1930. The decade 1930-40 continued to show an increase in heart mortality among white persons, but the course among nonwhite persons has been slightly downward (2). The age-adjusted death rate from all forms of heart disease per 100,000 population in the United States in 1940 was 330 for nonwhite and 288 for white persons, a nonwhite excess of 15 percent. Differences in heart mortality rates between the two groups have decreased in recent years (3), as indicated by the following figures:

	1940	1941	1942	1943	1944	1945	1946	1947
Nonwhite rate.....	330	326	317	327	313	304	300	320
White rate.....	288	281	281	298	287	285	280	292
Percentage excess non-white over white.....	15	16	13	10	9	7	7	10

The excess of Negro over white heart mortality will be studied in this paper in relation to the effect of differences in environment in urban and rural parts of the several geographic sections of the United States. Consideration will also be given to sex and to age, to see whether the excess of the Negro death rate over the white death rate still holds.

Source and Limitations of Data

The number of resident deaths from heart disease in 1940 according to geographic section, population-size group, age, sex, and race have

*Division of Public Health Methods, Public Health Service. This is the eighth paper in a series dealing with statistics of heart mortality and morbidity. This series is the result of a joint study undertaken by the Division of Public Health Methods and the National Office of Vital Statistics and is financed in part by the National Heart Institute.

been tabulated by the National Office of Vital Statistics of the Public Health Service. Mortality rates based on these data have been computed and age-adjusted for purposes of geographic comparison.

Both the Negro and white mortality rates have been adjusted to the total United States population, a standard practically equivalent to the age distribution of the white population as Negroes constitute only one-tenth of the total population. For this reason and also because the enumerated Negro population is relatively younger than the white, it follows that age adjustment of the crude death rate from diseases of the heart raises the Negro rate by a considerable amount and makes only a comparatively small change in the white rate.

Deaths from diseases of the heart among the Negroes is one of the classification groups that is known to be underreported. Nearly 5 percent of the Negro deaths are classified as due to senility and ill-defined and unknown causes, subgroups which accounted for less than 2 percent of the white deaths in 1946 (4). Therefore, any excess of Negro over white heart mortality may be understated.

The deaths from diseases of the heart (all forms) are those tabulated under code numbers 90-95 of the fifth revision (1938) of the International List of Causes of Death (5). In a previous study (10) mortality from nephritis and from intracranial lesions of vascular origin were included because they are closely related to hypertension and heart disease. The reporting of multiple causes of death by physicians occurs more frequently in urban areas, particularly near large medical centers, and also occurs more often in the North than in the South. The proportion of the total cardiovascular-renal deaths that are reported as due to heart disease is influenced by these factors. Other possible artifacts in the mortality differences between rural areas and small cities are the failure to allocate deaths properly to the place of residence and the incompleteness of death registration.

Five main divisions of diseases of the heart (as classified by the International List) are considered in this study. In addition, three groups of heart diseases not in the 90-95 group are studied: syphilitic heart disease, acute rheumatic fever, and congenital heart disease.

The details of diagnosis of heart disease may be less accurately reported in rural areas. This would lead to some increase in recorded deaths from unspecified types, tabulated as other diseases of the heart, as size of city decreases.

Distribution of Population

The 13.5 million nonwhite persons enumerated in 1940 represent one-tenth of the total population of the United States, and include 12.9 million Negroes (6). The distribution of the Negro population with respect to region and urbanization is not like that of the white population (table 1).

Table 1. Negro and white mortality from diseases of the heart (all forms) by sex, population-size groups, and geographic sections in the United States—resident age-adjusted¹ mortality per 100,000 population, 1940

Region, geographic section, and size of city	Population		Negro mortality			White mortality		
	Negro ²	White	Total	Male	Female	Total	Male	Female
United States	12,865,518	118,214,870	335.7	358.0	313.3	287.8	341.3	
100,000 and over	3,502,846	34,351,641	434.5	469.9	403.6	346.8	418.3	280.3
2,500-100,000	2,750,742	33,621,182	376.9	429.0	330.8	299.0	371.5	233.3
Rural	6,611,930	50,242,047	263.7	274.9	251.0	237.6	272.7	197.4
EAST NORTH								
New England	101,509	8,329,146	414.4	468.0	370.4	326.8	388.2	270.5
100,000 and over	61,569	2,317,519	406.3	456.4	369.0	375.5	445.0	315.4
2,500-100,000	26,062	4,010,649	440.9	505.5	383.1	322.9	389.6	263.9
Rural	13,878	2,000,978	402.7	443.2	349.3	283.6	332.6	232.9
Middle Atlantic	1,268,366	26,237,622	452.5	474.7	433.2	357.6	417.3	299.9
100,000 and over	896,334	12,209,672	457.4	483.9	435.9	389.7	452.1	330.2
2,500-100,000	250,246	7,765,103	374.7	376.2	371.0	325.0	393.8	263.0
Rural	121,786	6,262,847	554.5	561.9	546.3	337.6	380.9	290.4
East North Central	1,069,326	25,528,451	441.5	476.1	407.0	291.7	341.9	240.2
100,000 and over	767,012	8,625,883	458.1	490.3	430.5	343.8	408.5	280.6
2,500-100,000	212,288	7,827,382	360.7	395.8	322.2	294.1	343.2	229.4
Rural	90,026	9,075,186	471.4	511.0	416.7	255.0	289.8	214.9
EAST SOUTH								
South Atlantic	4,698,863	13,095,227	333.6	363.4	304.3	258.6	317.9	200.7
100,000 and over	732,415	2,093,803	441.1	492.3	399.1	318.3	405.2	243.7
2,500-100,000	1,071,857	3,019,696	389.1	454.4	334.6	295.3	397.2	207.5
Rural	2,894,591	7,891,728	281.9	299.9	261.8	223.2	262.3	181.1
East South Central	2,780,635	7,993,755	282.6	303.0	262.1	220.0	263.0	176.6
100,000 and over	377,410	909,183	402.1	447.0	360.0	301.1	393.8	223.6
2,500-100,000	515,692	1,362,427	365.2	433.3	309.4	288.0	372.2	216.3
Rural	1,887,533	5,722,145	229.9	237.4	221.7	186.8	216.3	154.6
WEST CENTRAL								
West South Central	2,425,121	10,569,506	294.9	307.5	282.1	219.5	269.0	167.2
100,000 and over	364,727	1,584,414	441.4	495.4	393.5	326.3	427.9	237.1
2,500-100,000	554,017	2,689,722	379.2	420.0	343.4	270.3	355.8	190.4
Rural	1,506,377	6,295,460	224.3	225.2	223.5	167.6	197.1	132.8
West North Central	350,992	13,111,519	371.3	383.1	356.6	226.2	270.2	180.2
100,000 and over	204,532	2,509,939	404.7	412.3	393.6	281.2	352.2	216.6
2,500-100,000	77,594	3,196,174	357.9	412.8	299.3	264.4	335.6	201.6
Rural	68,866	7,405,406	291.8	266.3	324.1	190.4	220.0	155.5
WEST								
Mountain	36,411	3,978,913	406.4	461.0	339.3	248.3	291.5	196.9
100,000 and over	8,530	462,509	413.9	437.3	399.2	278.6	339.6	223.0
2,500-100,000	17,374	1,275,779	435.7	549.8	298.6	301.3	376.9	223.0
Rural	10,507	2,240,625	341.9	331.0	358.2	205.7	232.3	168.2
Pacific	134,295	9,370,641	325.8	346.9	305.1	291.1	365.7	215.0
100,000 and over	90,317	3,638,719	330.3	321.9	282.1	303.3	394.0	220.8
2,500-100,000	25,612	2,474,250	273.3	268.0	278.0	302.6	397.1	217.1
Rural	18,366	3,257,672	545.4	545.0	544.2	265.0	311.9	203.2

¹ Adjusted for age by the direct method to the total population of the United States enumerated in 1940.

² Data not given for 588,887 other nonwhite persons.

The majority (58 percent) of the Negro population resides in the East South region (fig. 1). About one-fifth of the Negroes are in the East North region and another fifth in the West Central region. The other 1 percent are in the Mountain and Pacific geographic sections combined. In contrast half (51 percent) of the white population resides in the East North, one-fifth in the East South, one-fifth in the West Central, and 11 percent in the West.

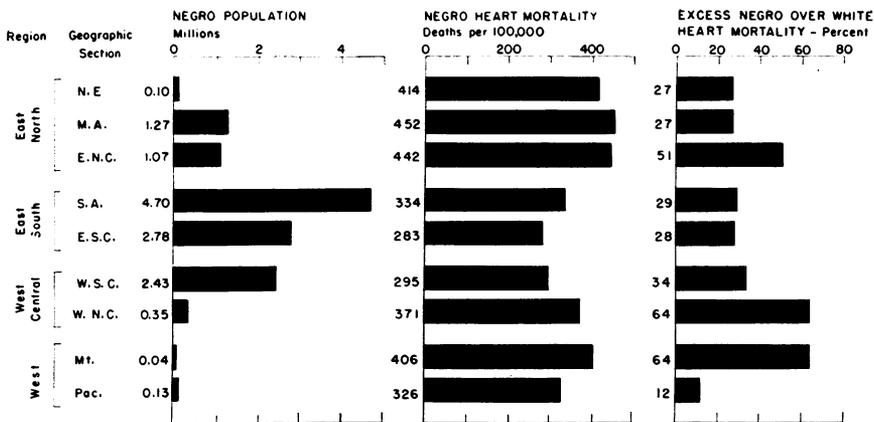


Figure 1. Geographic-sectional comparison of Negro population, Negro mortality from diseases of the heart (all forms), and the percentage excess of Negro over white heart mortality—resident age-adjusted mortality, 1940.

The Negro population of the East South is both urban and rural, with about one-third urban. The East-North Negroes are 91 percent urban, with heavy concentration in the larger cities of 100,000 or more persons. In the West Central region the Negro population has the same pattern of urbanization as that in the Southern States east of the Mississippi River.

The white population in the East South and in the West Central regions is similar to the Negro population in degree of urbanization. In the East North region, however, the white persons are divided about equally among large and small cities and rural areas. Therefore any Negro-white comparison of mortality is unaffected by variation in the degree of urbanization except in the East North region.

Mortality From Diseases of the Heart (All Forms)

Negro mortality from diseases of the heart (all forms) was 336 per 100,000 population (age-adjusted) in the United States in 1940 (table 1). The male death rate was higher than the female rate in each of the three size-of-city groups. The recorded mortality was higher in urban than in rural areas and increased with population-size. The total Negro heart mortality rate was 17 percent in excess of the white rate.

Among the nine United States census geographic sections, the three forming the North region east of the Mississippi River showed the highest Negro mortality (fig. 1). All of the five geographic sections with 1 million or more Negroes had Negro death rates at least one-fourth higher than the corresponding white rates. In the East North Central section the Negro death rate was one-and-a-half times

the white rate—442 as compared with 292 deaths per 100,000 population; this reflects the Negro concentration in the larger cities where the heart mortality rate was high.

Nonwhite and white mortality rates specific for sex and population-size groups are given in appendix table 1 for each of 28 States with large Negro populations. The discussion in the text, however, will be limited to the three regions illustrated in figure 2.

Regional Comparison

The East North, East South, and West South Central regions accounted for 96 percent of the total Negro population in 1940. This regional classification permits a North-South comparison in the eastern section of the United States and an East-Central comparison in the southern section of the United States.

The North-South comparison in the eastern section shows that heart mortality was considerably higher in the North than in the South for each race (fig. 2). This was true for females in the three population-size groups and for males in the larger cities and in rural areas. The exception was the high death rate among Negro and white males in the smaller cities and towns of the South. The North-South difference was greatest in the rural areas where, for both sexes,

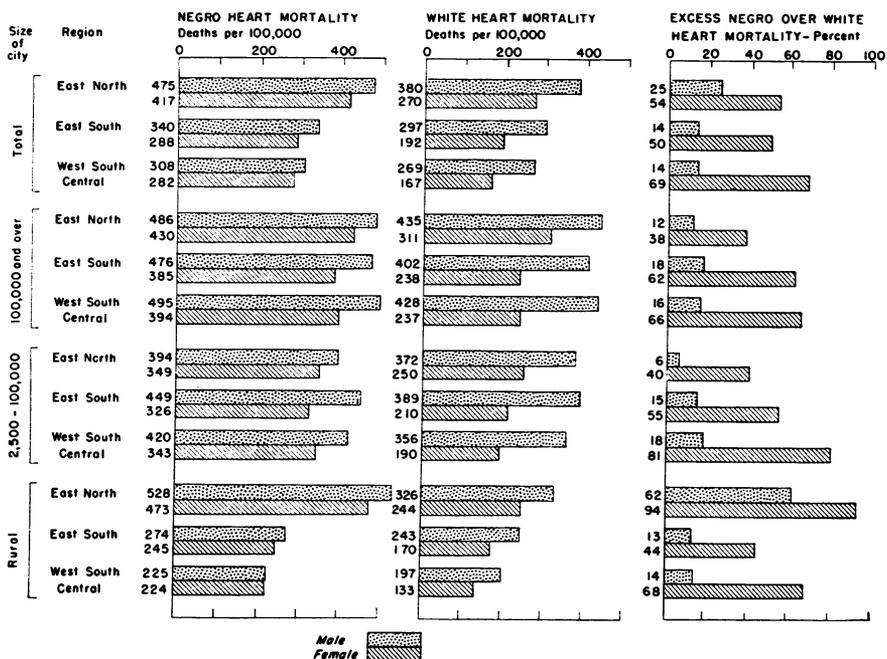


Figure 2. Regional comparison of Negro and white mortality from diseases of the heart (all forms) among males and females, and the percentage excess of Negro over white mortality—resident age-adjusted mortality, specific for race, sex, population-size group, and region, 1940.

the northern death rate was nearly twice the corresponding southern rate. The recorded mortality rates among Negroes may be low due to the underreporting of deaths from heart disease. However, among white males and females in rural areas there was a northern excess in mortality amounting to 34 and 44 percent, respectively, over the southern death rates. The excess of Negro heart mortality over the white rate was higher in the North than in the South in the rural areas; the reverse was apparent for urban areas.

The East-Central comparison in the southern section does not show as consistent or as wide differences as noted above. Somewhat higher mortality rates for the smaller cities and for the rural areas were reported in the East than in the Central region. In the rural areas heart disease mortality was about one-fourth higher in the East among Negro males and among white males and females; the excess among Negro females was only 9 percent. In the larger cities with 100,000 or more inhabitants, however, the death rates for the East were equal to or slightly less than the corresponding Central rates for each sex and race. There was only a slight tendency for the Central region to show a greater excess of Negro-over-white mortality.

Population-Size Differences

Recorded mortality from diseases of the heart was higher in urban than in rural parts of the United States for each sex and each racial group. For Negro males the urban heart mortality rate was 449 deaths per 100,000 (age-adjusted) as compared with the rural rate of only 275; for Negro females the corresponding rates were 369 and 251 per 100,000 (fig. 3). The urban rates were thus 63 and 47 percent higher than the rural rates for these two groups. For white males and females the excess of urban mortality over rural death rates amounted to 45 and 30 percent. When urban and rural rates are compared, the excess of Negro-over-white mortality was greater in urban areas.

The urban death rate was markedly higher than the rural rate in the East South and the West South Central regions for both Negro and white males and females. In these two regions the difference in heart mortality between cities of the two size groups shown in figure 2 was consistent in the pattern of decreased recorded heart mortality with a descending order of population size. The difference was greatest among males in the West South Central region, where the rural mortality rate was less than half the rate recorded for the large cities with 100,000 or more inhabitants.

Only in the East North region was Negro heart mortality higher in rural than in urban areas. The white mortality, however, was of the pattern consistent with the other two regions although the urban excess was slight. This was the only region in which the urban excess of Negro-over-white mortality was less than the rural excess.

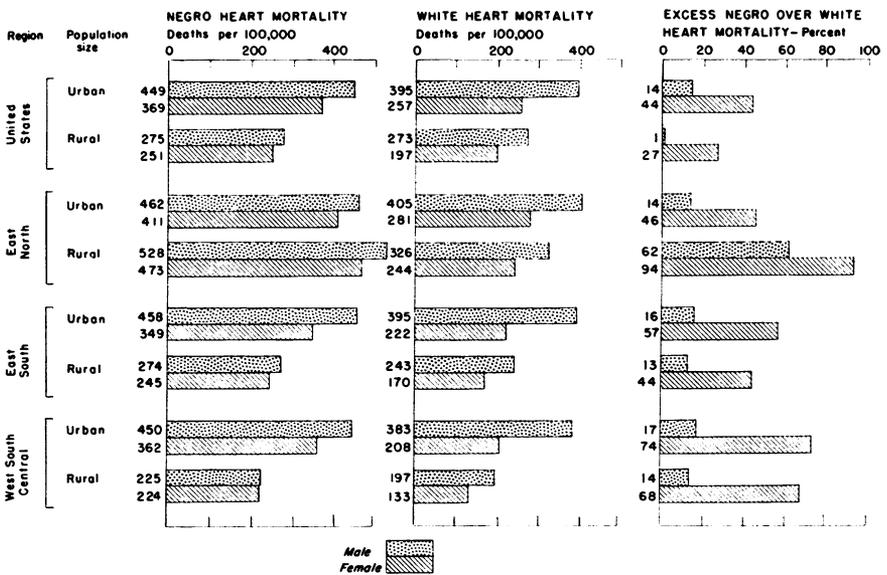


Figure 3. Urban-rural comparison of Negro and white mortality from diseases of the heart (all forms) among males and females, and the percentage excess of Negro over white mortality—resident age-adjusted mortality, specific for race, sex, population-size group, and region, 1940.

How much of the urban-rural difference can be attributed to inaccuracy of reporting cause of death in rural areas is unknown. In a previous study (10) it has been shown that the addition of old-age causes of death to heart disease mortality made little difference in the excess of urban over rural rates among white persons in the East North and East South regions. However, it should be remembered that some of the difference between rural areas and small cities may be due to failure to allocate deaths properly to place of residence and to incompleteness of registration.

Male-Female Comparison

Heart mortality among Negro males was consistently higher than that among Negro females in each of the three regions and in each of the population-size groups (figs. 2 and 3). The difference between male and female death rates was greatest in the small cities and towns of the East South region, where the male rate was 38 percent higher than the female rate. Sex differences in mortality tended to be higher in urban than in rural areas and in the South than in the North.

Sex ratios of heart mortality were higher among white persons than among the Negroes. The same relationships with size of city and region held, but there was a higher male percentage excess among the white population. For example, the excess of male mortality over female mortality in the middle population-size group in the East

South region was 85 percent for white persons, as compared with the 38 percent for Negroes quoted above.

The Negro percentage excess in heart mortality over the white rate was consistently higher for females than for males. This is illustrated by the differences in the lengths of the bars for the two sexes in the right side of figures 2 and 3. The most striking difference is apparent for the middle population-size group in the West South Central region; the Negro mortality rate was 18 percent higher than the white rate for males but 81 percent higher for females.

Variation with Age

Variation in mortality from diseases of the heart with age is illustrated in figure 4 which gives the age-specific mortality curves for each sex and race for the United States and the East North and the East South regions—total, urban, and rural. The increase with age from 15 years onward is shown on semi-logarithmic grids; the basic data are the sums of the rates for the five specific forms of heart disease given in appendix table 2.

For the country as a whole, heart mortality among Negro males was lower than among Negro females in the two age groups under 25 years, then increasingly higher thereafter, with the greatest percentage excess in the oldest age groups. The mortality curves for white persons showed consistently higher male rates, with the greatest sex differences in the age span 35–64 years. The percentage excess in heart mortality of Negroes over white persons was greatest during the middle adult years; among females the Negro rate was three to four times the white rate at ages 25–54 years. During the older ages, Negro mortality increased at a much slower rate and at age 65 fell below white mortality, possibly an effect of diseases of the coronary arteries which is presented later (fig. 6). In the East North region the retardation during the older ages was not as great as in the East South. Negro mortality in the older ages may be affected by misstatement of age, which would account for part of this difference.

Heart mortality rates for Negroes in rural areas of the United States (and in the East South) increased at slower rates with age than did the rates for urban Negroes. Males under middle age showed lower rates than females in rural areas, but in urban areas they exceeded the females at all ages.

Mortality from Eight Specific Forms of Heart Disease

Deaths from five main divisions of diseases of the heart and from three closely related diseases have been tabulated according to the International List of Causes of Death (1938 revision) as follows:

Diseases of the heart:	<i>Code numbers</i>
Diseases of the coronary arteries and angina pectoris.....	94a-b
Acute endocarditis (except rheumatic).....	91a-c
Chronic affections of the valves and endocardium and other chronic rheumatic heart disease.....	90a, 92a-e, 93c, 95b
Diseases of the myocardium.....	93a-b, d-e
Other diseases of the heart.....	90b, 95a, c
Closely related diseases:	
Acute rheumatic fever.....	58
Syphilitic heart disease.....	30d, e
Congenital heart disease.....	157e, f

Negro mortality rates for each of the five specific forms of diseases of the heart are given in table 2 by race and sex for three size-of-city groups in the United States and each of seven geographic sections. The discussion in the text, however, will be limited to the United States and to the North and South sections of the eastern United States—the East North and the East South regions (fig. 5). For the three related diseases with low mortality rates, data for the United States only are presented in table 3 and figure 5. Differences in mortality related to region, population-size, sex, and age previously presented for all forms combined will now be discussed for each of the specific forms of heart disease.

Diseases of the myocardium accounted for slightly more than half of the total Negro deaths from all forms of heart disease in the United States in 1940. In second place, with about one-fifth of the deaths, were those tabulated as due to chronic valvular heart disease. About an equal number of deaths were coded as due to diseases of the coronary arteries (and angina pectoris) and to other diseases of the heart, usually an unspecified form. The fifth main division, with less than 1 percent of the total deaths, was acute endocarditis. Among white persons a larger proportion of the heart disease deaths were accounted for by diseases of the coronary arteries; and a smaller proportion, by valvular heart disease and by other diseases of the heart (13).

Male-Female Comparison

Heart mortality among Negroes in the United States was higher for men than for women for six of the eight forms of heart disease (fig. 5). The greatest sex differential was apparent for syphilitic heart disease, with the male rate over three times the female rate (about the same difference as among white persons). Death rates from diseases of the coronary arteries among males exceeded those among females by 42 percent (141 percent among white persons). The sex difference for congenital heart disease was 34 percent (31 percent among white persons); less sex differences were apparent for the other forms of heart disease.

Acute endocarditis resulted in higher mortality rates among females than among males in the Negro population. For acute rheumatic

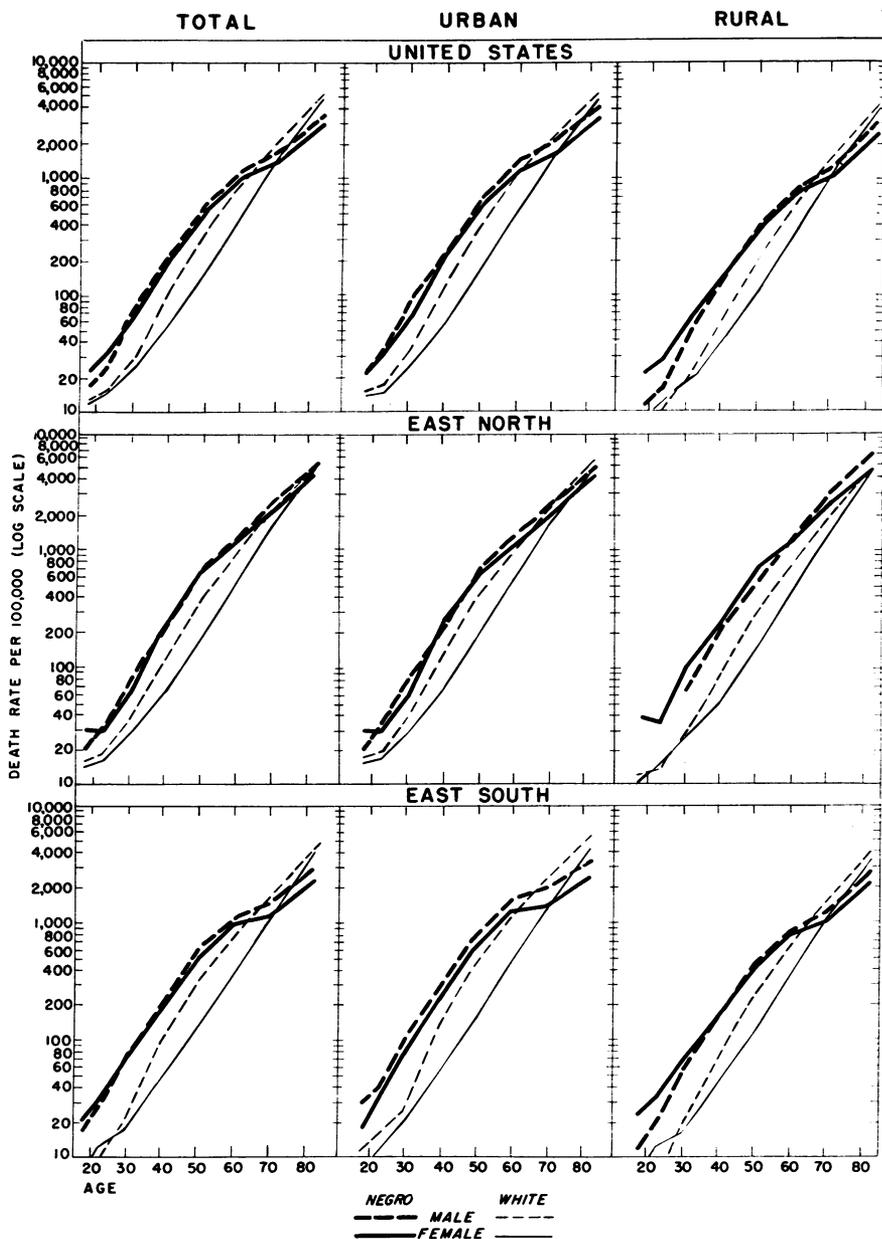


Figure 4. Age-specific mortality from diseases of the heart (all forms) among Negro and white males and females in the United States and in North and South sections of the eastern United States—total, urban, and rural, 1940.

fever the same was true in the white population as well as the Negro. These differences are borne out in the Negro age-specific rates presented in appendix tables 2 and 3—for acute endocarditis in the older age groups and for acute rheumatic fever at nearly all ages.

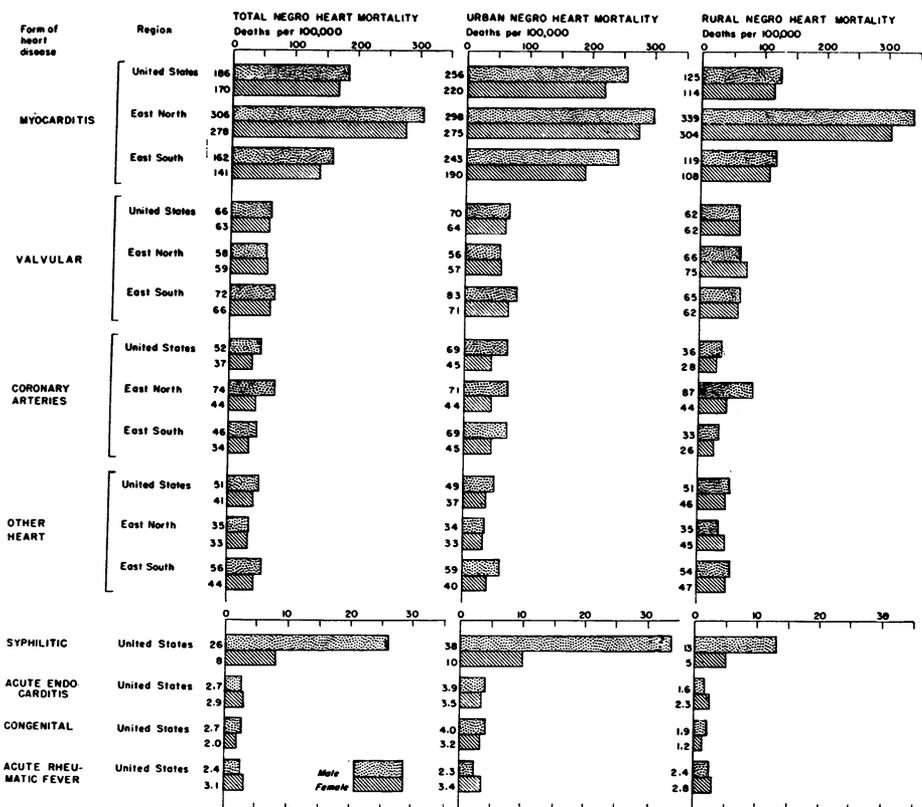


Figure 5. Negro mortality from eight specific forms of heart disease among males and females in the United States and in North and South sections of the eastern United States—total, urban, and rural—resident age-adjusted mortality, specific for race, sex, population-size group, and region, 1940.

The percentage excess of Negro male over female heart mortality was higher in urban than in rural parts of the United States for each form of heart disease with the exception of acute rheumatic fever and congenital heart disease. Among white persons the exceptions were valvular heart disease and congenital heart disease.

North-South Comparison

That Negro mortality from all forms of heart disease was higher in the North than in the South sections of the eastern United States is due to the North-South difference in rates for diseases of the myocardium and for diseases of the coronary arteries. The northern mortality rates from diseases of the myocardium were nearly double the southern rates for males and for females (fig. 5). For diseases of the coronary arteries the northern rate was 59 percent in excess of the southern rate for males, 31 percent for females. The other three

Table 2. *Negro and white mortality from five specific forms of diseases of the heart by sex, population-size groups, and geographic sections in the United States—resident age-adjusted¹ mortality per 100,000 population, 1940*

Region, geographic section, and size of city	Diseases of the coronary arteries		Acute endocarditis		Chronic affections of the valves and endocardium		Diseases of the myocardium		Other diseases of the heart	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Negro mortality										
United States ²	52.25	36.78	2.74	2.90	66.08	62.54	186.31	169.95	50.62	41.16
100,000 and over.....	68.73	44.27	3.41	2.73	58.75	65.51	300.17	259.88	38.84	31.22
2,500-100,000.....	71.36	45.58	4.58	4.39	83.83	62.23	206.59	174.43	62.62	44.15
Rural.....	35.90	27.52	1.60	2.26	61.87	61.53	124.66	114.02	50.83	45.64
EAST NORTH										
New England.....	91.86	63.07	5.94	1.93	48.48	65.06	296.67	207.57	25.05	32.73
100,000 and over.....	86.17	58.32	10.04	-----	45.56	67.54	305.24	226.29	9.37	16.87
2,500-100,000.....	92.99	79.89	-----	7.41	48.29	57.57	306.89	190.11	57.33	48.09
Rural.....	108.77	57.60	-----	-----	57.87	64.91	245.62	148.65	30.92	78.12
Middle Atlantic.....	79.56	40.95	2.22	3.39	53.22	60.28	314.55	302.55	25.15	26.04
100,000 and over.....	73.86	36.66	2.69	2.65	52.72	56.09	338.00	320.99	16.62	19.50
2,500-100,000.....	86.41	48.65	1.64	3.99	55.56	67.94	187.48	210.56	45.07	39.82
Rural.....	91.32	53.04	1.50	7.04	47.42	70.77	392.40	373.57	29.23	41.90
East North Central.....	65.44	45.27	2.40	2.24	62.00	56.92	300.58	260.74	45.66	41.79
100,000 and over.....	56.77	46.35	2.41	2.01	50.41	54.17	337.03	285.70	43.66	42.30
2,500-100,000.....	76.18	49.00	4.42	1.91	74.25	53.36	192.58	178.75	48.41	39.15
Rural.....	79.35	32.76	-----	5.21	85.45	75.71	305.90	256.05	40.26	46.96
EAST SOUTH										
South Atlantic.....	49.78	36.55	2.71	2.93	68.59	60.96	178.97	156.17	63.34	47.69
100,000 and over.....	70.05	45.96	4.01	4.29	71.67	72.56	303.47	240.05	43.08	36.26
2,500-100,000.....	71.13	46.82	5.66	4.02	86.45	64.32	215.94	171.98	75.26	47.41
Rural.....	36.57	28.60	1.26	2.02	61.24	55.83	137.47	123.83	63.35	51.52
East South Central.....	40.67	28.87	2.92	2.40	76.49	72.92	137.61	118.73	45.27	39.14
100,000 and over.....	74.38	51.00	3.81	3.87	70.10	78.67	247.53	191.21	51.21	35.29
2,500-100,000.....	60.01	34.17	4.23	4.47	101.32	74.18	214.00	163.46	53.75	33.11
Rural.....	28.39	21.79	2.38	1.29	70.08	71.31	94.65	85.78	41.85	41.51
WEST CENTRAL										
West South Central.....	46.61	38.03	3.08	3.91	58.94	54.28	139.61	139.67	59.30	46.17
100,000 and over.....	79.43	53.16	4.44	2.36	61.69	62.97	264.83	232.99	84.97	41.98
2,500-100,000.....	67.16	48.79	5.83	6.40	76.41	50.46	196.07	180.02	74.54	57.74
Rural.....	31.49	28.50	1.64	3.15	51.68	53.85	93.30	96.51	47.09	41.49
West North Central.....	62.31	43.66	1.57	1.04	74.18	85.69	219.42	204.19	25.67	22.02
100,000 and over.....	61.64	39.63	2.58	1.59	62.57	94.66	261.57	243.28	23.98	14.46
2,500-100,000.....	79.09	53.21	-----	-----	112.42	55.96	190.47	159.20	30.78	30.89
Rural.....	46.97	42.66	-----	-----	53.27	100.90	142.28	149.38	23.81	31.17
White mortality										
United States ²	111.93	46.54	1.98	1.69	39.50	34.84	162.91	135.00	25.01	15.71
100,000 and over.....	131.46	51.39	2.44	1.94	37.51	36.51	226.98	178.36	19.89	12.15
2,500-100,000.....	137.24	52.34	2.21	1.83	39.64	34.08	166.37	129.66	26.06	15.42
Rural.....	82.43	37.96	1.48	1.39	39.63	33.90	122.10	105.49	27.08	18.66
EAST NORTH										
New England.....	142.18	58.13	2.35	1.99	41.47	38.96	179.82	157.95	22.34	13.47
100,000 and over.....	143.43	55.18	2.29	2.18	39.44	41.65	242.02	204.24	17.81	12.15
2,500-100,000.....	152.01	60.00	2.75	1.82	39.34	38.43	173.19	150.44	22.29	13.25
Rural.....	122.50	57.21	1.62	2.12	44.93	35.83	137.29	122.63	26.24	15.14
Middle Atlantic.....	127.43	52.79	2.34	1.86	42.57	41.58	228.15	192.12	16.81	11.52
100,000 and over.....	132.18	54.01	2.11	1.59	39.81	43.00	265.93	222.94	12.09	8.70
2,500-100,000.....	136.85	52.96	2.56	2.13	40.42	37.92	195.19	157.73	18.76	12.28
Rural.....	107.55	50.30	2.41	2.02	46.63	42.34	202.53	180.12	21.76	15.59
East North Central.....	105.72	45.17	2.12	1.99	39.36	34.00	166.66	140.88	28.06	18.16
100,000 and over.....	112.57	46.52	2.63	2.46	35.12	33.69	228.63	180.44	29.50	17.46
2,500-100,000.....	122.48	48.20	1.90	1.83	36.99	32.19	155.25	130.57	26.63	16.64
Rural.....	86.96	41.12	1.73	1.59	42.10	34.86	132.02	117.60	27.02	19.69

See footnotes at end of table.

Table 2. Negro and white mortality from five specific forms of diseases of the heart by sex, population-size groups, and geographic sections in the United States—resident age-adjusted¹ mortality per 100,000 population, 1940—Continued

Region, geographic section, and size of city	Diseases of the coronary arteries		Acute endocarditis		Chronic affections of the valves and endocardium		Diseases of the myocardium		Other diseases of the heart	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
White mortality										
EAST SOUTH										
South Atlantic.....	106.64	41.10	1.87	1.47	39.25	31.26	135.74	106.62	34.38	20.27
100,000 and over.....	145.70	52.37	3.10	2.40	37.53	30.92	199.12	147.59	19.76	10.47
2,500-100,000.....	156.70	50.62	2.28	1.44	38.52	29.29	162.60	106.68	37.12	19.43
Rural.....	75.66	32.25	1.32	1.18	39.76	32.40	108.18	90.96	37.34	24.35
East South Central.....	79.41	35.58	.84	.83	43.64	34.75	103.35	81.99	35.71	23.43
100,000 and over.....	174.22	59.17	.93	2.03	27.76	22.12	162.78	124.54	28.08	15.76
2,500-100,000.....	132.86	52.83	.92	1.14	49.81	38.82	152.51	102.11	36.10	21.43
Rural.....	51.16	25.37	.82	.52	44.46	36.10	83.26	66.87	36.59	25.71
WEST CENTRAL										
West South Central.....	94.65	40.26	1.51	1.14	28.98	23.84	105.02	81.13	38.88	20.86
100,000 and over.....	155.77	57.89	2.97	1.44	28.29	29.64	194.07	130.41	46.82	17.69
2,500-100,000.....	143.61	51.88	1.85	1.88	30.53	21.70	136.23	92.77	43.63	22.19
Rural.....	60.05	28.50	.97	.70	28.34	23.32	73.05	59.09	34.66	21.18
West North Central.....	98.42	41.81	1.81	1.90	39.03	34.05	108.76	87.62	22.14	14.84
100,000 and over.....	133.28	50.58	2.25	1.65	37.70	34.90	159.32	117.21	19.69	12.24
2,500-100,000.....	130.82	51.45	2.43	2.17	42.25	35.40	130.20	96.61	27.91	15.98
Rural.....	74.90	33.59	1.37	1.89	37.59	32.91	85.68	71.78	20.42	15.31

¹ Adjusted for age by the direct method to the population of the United States enumerated in 1940.

² Includes the Mountain and Pacific geographic sections for which mortality rates are not presented separately.

Table 3. Negro and white mortality from acute rheumatic fever, syphilitic heart disease, and congenital heart disease by sex and population-size groups in the United States—resident age-adjusted¹ mortality per 100,000 population, 1940

Size of city	Acute rheumatic fever		Syphilitic heart disease		Congenital heart disease	
	Male	Female	Male	Female	Male	Female
Negro mortality						
United States.....	2.37	3.09	26.06	8.02	2.68	2.00
100,000 and over.....	2.10	3.47	46.49	11.91	4.89	3.75
2,500-100,000.....	2.57	3.27	26.99	8.58	2.82	2.60
Rural.....	2.45	2.85	12.90	4.85	1.91	1.24
White mortality						
United States.....	1.15	1.19	4.29	1.08	5.84	4.45
100,000 and over.....	1.20	1.33	6.75	1.58	5.82	4.56
2,500-100,000.....	1.35	1.23	4.33	.98	7.05	5.57
Rural.....	1.02	1.10	2.56	.74	5.22	3.83

¹ Adjusted for age by the direct method to the population of the United States enumerated in 1940.

forms of heart disease showed northern rates below southern rates, the greatest percentage difference (—38 percent) being apparent for the subgroup, other diseases of the heart, among males. Among

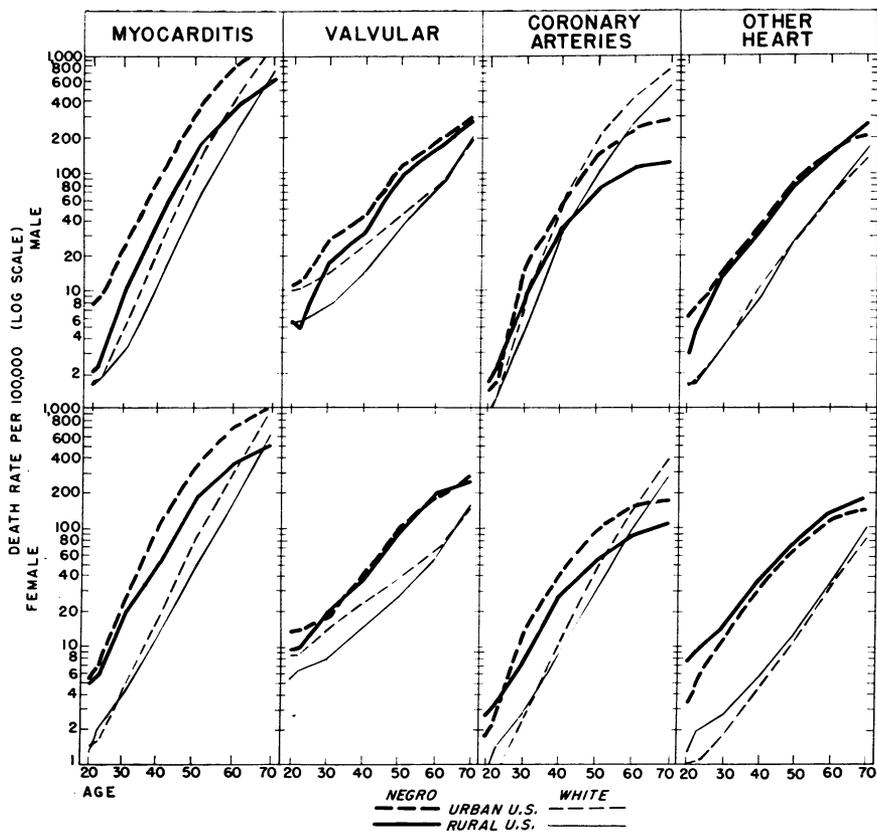


Figure 6. Age-specific mortality from four major forms of diseases of the heart among Negro and white males and females in urban and rural parts of the United States, 1940.

white persons mortality from all except the subgroup, other diseases of the heart, showed higher northern rates. Interchange of diagnosis is undoubtedly responsible for much of these differences; the same condition described as one form of heart disease in the North may be reported as another form in the South.

The three major specific forms—myocarditis, valvular heart disease, and diseases of the coronary arteries—all showed greater North-South mortality differences in rural than in urban areas. This would account for the difference in mortality from all forms of heart disease being greater in rural than in urban areas.

The subgroup, other diseases of the heart, was the only form with consistently higher rates in the South as compared with the North. This was observed also for white persons in rural and in urban areas (13).

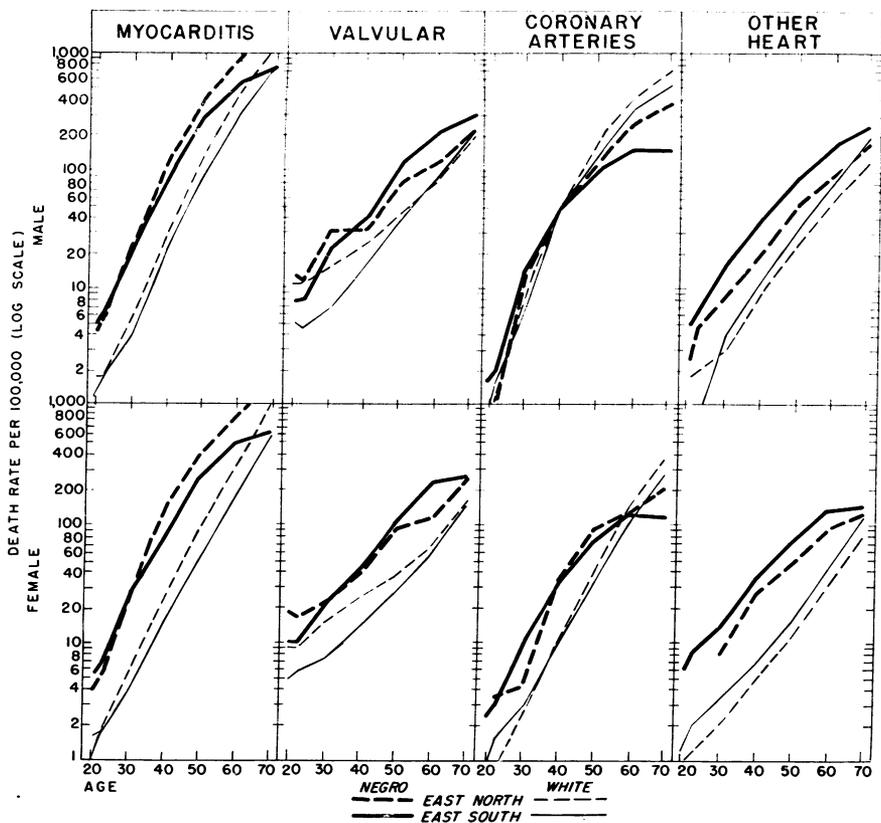


Figure 7. Age-specific mortality from four major forms of diseases of the heart among Negro and white males and females in North and South sections of the eastern United States, 1940.

Urban-Rural Differences

Higher urban than rural mortality was observed for Negro males and females in the United States for four of the specific forms of diseases of the heart, the exception being the subgroup, other diseases of the heart (fig. 5). The urban rates for myocarditis mortality were about twice the rural rates for both sexes. Mortality from diseases of the coronary arteries showed almost as great an urban percentage excess; acute endocarditis among males, a greater urban percentage excess. For valvular heart disease the difference was slight. Again it must be remembered that interchange of diagnosis is a factor in these differences.

Among Negroes in the East South region the urban death rates were markedly higher than the rural rates for the same three forms of heart disease—myocarditis, diseases of the coronary arteries, and acute endocarditis, with only a slight urban excess for valvular heart

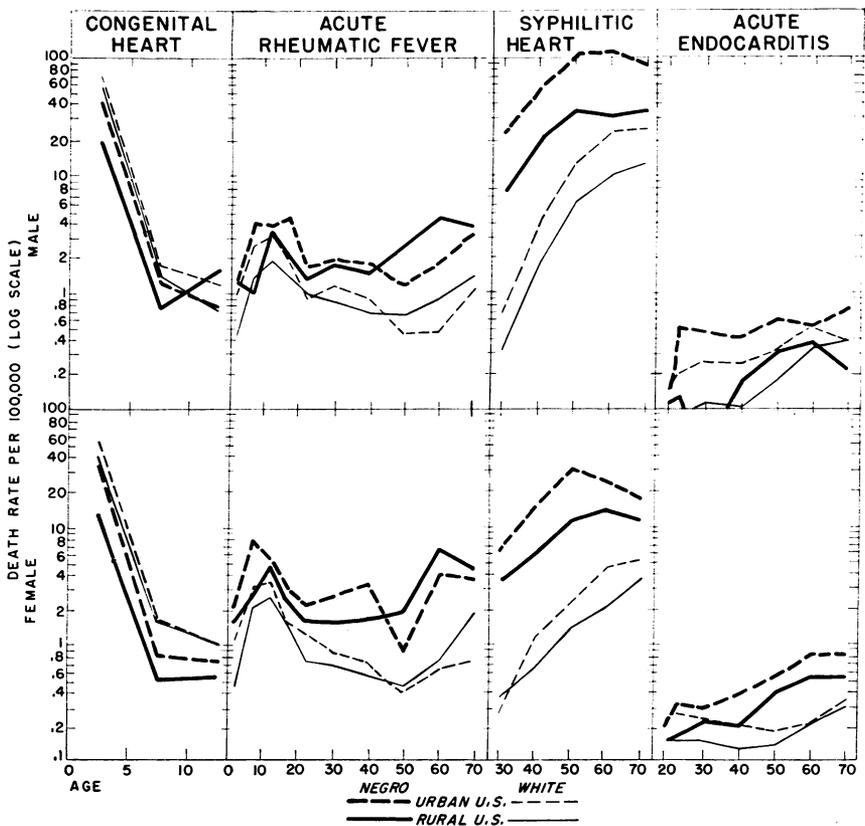


Figure 8. Age-specific mortality from four minor forms of heart disease among Negro and white males and females in urban and rural parts of the United States, 1940.

mortality. Only in the East North region were rural rates in excess of urban for all forms, as observed previously for total heart mortality.

Variation with Age

Certain of the specific forms of heart disease are associated with different age periods of the life span. Congenital heart disease occurs mainly in persons under 5 years of age. In this age group it accounted for more than two-thirds of the total Negro deaths due to all forms of heart and related diseases. From 5 to 35 years, valvular heart disease is the prime cause of heart mortality and was responsible for one-fourth to one-half of the deaths from all forms. From 35 years on, it takes second place to diseases of the myocardium. The proportion of all heart disease deaths assigned to myocarditis increased from one-third at age 35 to two-thirds during the older ages.

Acute rheumatic fever appears as the second most important cause of Negro heart mortality in the young ages, 5-14 years. Diseases of the coronary arteries accounted for a relatively large part of the total

deaths (12 to 18 percent) in the age span 25-64 years; syphilitic heart disease, about the same proportion among males in the ages 25-54 years. Deaths from acute endocarditis are associated with young adulthood but did not exceed one-tenth of the total during those ages.

The subgroup, other forms of heart disease, accounted for 9-20 percent of the total Negro deaths from heart and related diseases at each age. Such a large proportion of unspecified deaths may obscure the true relative ranks of the seven specific forms.

Age-specific mortality rates for each of the eight forms of heart and related diseases for Negro males and females are given in appendix tables 2 and 3 and are illustrated in figures 6, 7, and 8 for selected age groups. These figures may be used to show the difference in shape of the mortality curves for the several specific forms, as well as the urban-rural and North-South differences. Mortality curves for white persons are shown also for Negro-white comparisons.

For the four major forms of diseases of the heart, the increases with age throughout the entire age span from 15 years onward for males and females are shown in figure 6. In the older ages, the increase is at a much slower rate, especially for diseases of the coronary arteries among Negroes. The fastest increases are observed for diseases of the myocardium; the slowest, for valvular and for other diseases of the heart.

The fifth division of diseases of the heart, acute endocarditis, presents a mortality curve that is different in shape—relatively high at ages 20-34 years, with only a slow increase in later years (fig. 8). Congenital heart disease has its mortality peak in the youngest age group, with very rapid decline thereafter. Deaths from acute rheumatic fever have their highest rate at about ages 10-14 years, followed by a decline and a rise again in the oldest ages. Syphilitic heart disease mortality shows a steady increase for males during young adulthood and the middle years, with some retardation during later ages.

The urban-rural relationships discussed previously for all ages combined are evident for specific age groups in figures 6 and 8. Urban mortality was higher than rural mortality for all except the subgroup, other diseases of the heart, for females.

The North-South mortality curves for the Eastern United States (fig. 7) are similar to the urban-rural curves for the total United States (fig. 6). The North and urban rates were higher than their corresponding South and rural rates for the specific age groups. The only differences between the two sets of curves were the slight reversals for valvular heart disease mortality after age 35 and the complete reversal for other heart disease among males.

The Negro mortality curves for six of the eight forms of heart disease were higher than the white curves for nearly every age group.

Deaths from diseases of the coronary arteries, however, showed higher rates among white males above age 35 and among white females above age 65. The other exception was congenital heart disease with higher white than Negro rates for both sexes.

Summary

Negro mortality from diseases of the heart—total and for each of five specific forms—and from three closely related diseases is discussed in this study. Differences in mortality are related to region, population-size groups, sex and age, and comparisons are made with the corresponding mortality rates among white persons.

Negro heart mortality (all forms combined, age-adjusted) was higher (1) in the North than in the South section of the eastern United States, (2) in the urban than in rural parts of the United States, (3) in males than in females, and (4) in older than in younger ages. The North-South difference in heart mortality was due to the higher rates in the North for diseases of the myocardium and diseases of the coronary arteries. Higher urban than rural rates were observed for four of the five specific forms of diseases of the heart. The greatest sex differential was apparent for syphilitic heart disease, followed by diseases of the coronary arteries and congenital heart disease.

The association of mortality from specific forms of heart disease with different age periods of the life span was noted: congenital heart disease occurred mainly in persons under 5 years of age; valvular heart disease was the prime cause from 5 to 35 years; myocarditis led from 35 years on. Acute rheumatic fever was the second leading cause of heart mortality in the young ages, 5 to 14 years. Deaths from acute endocarditis were associated with young adulthood; syphilitic heart disease, with males aged 25 to 54; diseases of the coronary arteries, with the age span 25 to 64. Negro mortality curves for six of the eight forms were higher than the white curves for nearly every age group.

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Appendix table 1. Nonwhite and white mortality from diseases of the heart (all forms) by sex and population-size groups in 28 States—resident age-adjusted¹ mortality per 100,000 population, 1940

Geographic section, State, and size of city	Population		Nonwhite mortality			White mortality		
	Nonwhite	White	Total	Male	Female	Total	Male	Female
NEW ENGLAND								
Maine ²	2,683	844,543						
New Hampshire ²	535	490,989						
Vermont ²	425	358,806						
Massachusetts:								
100,000 and over.....	40,358	1,613,920	420.5	480.2	366.9	385.0	460.5	325.3
2,500-100,000.....	11,780	2,193,418	309.3	390.1	223.7	317.3	380.0	267.1
Rural.....	6,987	450,258	390.1	468.1	292.5	339.2	403.5	279.5
Rhode Island:								
100,000 and over.....	6,600	246,904	583.1	710.4	459.7	357.1	427.0	301.0
2,500-100,000.....	4,042	395,837	633.8	585.1	682.6	338.3	389.9	295.2
Rural.....	899	59,064	(9)	(9)	(9)	320.9	371.1	271.1
Connecticut:								
100,000 and over.....	17,298	456,695	406.3	395.8	415.7	357.9	428.0	297.7
2,500-100,000.....	10,463	673,706	614.3	585.1	643.6	348.8	408.8	296.7
Rural.....	6,074	545,006	344.2	357.5	329.1	273.7	319.6	230.3
MIDDLE ATLANTIC								
New York:								
100,000 and over.....	509,224	8,426,307	514.1	568.8	469.1	393.3	464.0	330.5
2,500-100,000.....	52,078	2,178,284	319.7	261.4	374.5	326.7	395.0	271.1
Rural.....	38,294	2,274,955	680.2	718.1	633.8	353.6	403.2	302.3
New Jersey:								
100,000 and over.....	91,040	1,131,694	582.2	573.4	592.6	388.7	456.3	327.4
2,500-100,000.....	101,375	2,070,664	420.0	416.7	422.8	323.3	396.5	261.6
Rural.....	36,663	728,729	461.6	432.9	497.3	359.7	399.1	320.0
Pennsylvania:								
100,000 and over.....	319,249	2,651,671	498.8	516.0	482.4	381.3	454.3	319.7
2,500-100,000.....	99,802	3,516,155	412.7	452.4	369.4	325.6	401.5	260.1
Rural.....	54,140	3,259,163	575.4	560.4	596.8	324.6	362.9	283.1
EAST NORTH CENTRAL								
Ohio:								
100,000 and over.....	242,699	2,411,313	436.1	456.9	415.1	311.5	370.1	259.9
2,500-100,000.....	60,780	1,898,194	415.6	465.2	364.8	268.8	324.0	222.7
Rural.....	37,602	2,257,024	445.3	462.8	419.7	258.1	296.6	215.4
Indiana:								
100,000 and over.....	77,829	640,540	371.7	379.0	364.9	313.7	390.8	246.5
2,500-100,000.....	36,879	1,132,464	424.2	390.9	473.0	291.9	352.3	238.1
Rural.....	7,765	1,532,319	393.1	394.9	390.1	239.0	271.5	203.4
Illinois:								
100,000 and over.....	285,129	3,216,766	673.6	764.1	594.6	392.6	481.8	309.9
2,500-100,000.....	77,240	2,230,515	352.0	417.5	286.4	296.4	357.4	243.8
Rural.....	30,670	2,056,921	496.3	544.1	435.1	268.0	299.0	233.5
Michigan:								
100,000 and over.....	160,200	1,779,087	578.1	575.9	580.3	322.9	387.8	261.3
2,500-100,000.....	37,554	1,478,026	326.5	392.8	258.1	297.0	357.8	242.4
Rural.....	18,709	1,782,530	428.4	430.2	425.5	297.9	327.7	261.8
Wisconsin ²	24,835	3,112,752						

See footnotes at end of table.

Appendix table 1. *Nonwhite and white mortality from diseases of the heart (all forms) by sex and population-size groups in 28 States—resident age-adjusted¹ mortality per 100,000 population, 1940—Continued*

Geographic section, State, and size of city	Population		Nonwhite mortality			White mortality		
	Nonwhite	White	Total	Male	Female	Total	Male	Female
SOUTH ATLANTIC								
Delaware:								
100,000 and over.....	14,329	98,175	585.1	689.6	487.6	291.6	350.2	243.2
2,500-100,000.....	4,139	22,789	562.6	543.3	585.1	251.7	300.0	211.6
Rural.....	17,509	109,564	497.9	368.4	672.8	294.1	330.2	256.6
Maryland:								
100,000 and over.....	166,395	692,705	511.9	553.0	474.3	377.3	460.5	311.4
2,500-100,000.....	21,236	200,015	595.1	596.8	573.8	317.3	397.0	251.9
Rural.....	115,132	625,761	362.3	379.1	342.4	301.7	351.5	252.5
District of Columbia:								
100,000 and over.....	188,765	474,326	521.5	573.1	479.7	293.3	406.7	210.5
Virginia:								
100,000 and over.....	107,420	229,954	460.3	505.9	422.3	307.8	390.1	245.4
2,500-100,000.....	133,960	473,341	402.4	463.6	351.1	315.1	436.6	216.6
Rural.....	420,810	1,312,288	364.8	397.6	328.4	246.7	287.0	204.4
West Virginia:								
2,500-100,000.....	34,284	500,008	440.7	526.6	352.5	290.5	377.1	214.0
Rural.....	83,588	1,284,094	393.7	407.3	373.8	199.4	220.7	174.5
North Carolina:								
100,000 and over.....	31,424	69,475	338.1	446.5	258.8	334.0	477.3	217.3
2,500-100,000.....	268,163	605,113	374.0	454.2	311.9	284.5	390.0	200.8
Rural.....	704,401	1,893,047	252.9	266.4	238.9	219.3	258.3	179.6
South Carolina:								
2,500-100,000.....	170,489	295,622	517.2	667.3	411.6	337.2	497.2	216.6
Rural.....	645,007	738,686	364.7	307.8	301.6	236.0	297.5	174.1
Georgia:								
100,000 and over.....	104,602	197,686	631.3	833.2	487.6	291.9	440.9	183.4
2,500-100,000.....	275,553	495,967	493.5	581.3	428.6	325.3	473.4	211.0
Rural.....	705,290	1,344,625	229.2	250.9	206.1	177.0	219.9	133.7
Florida:								
100,000 and over.....	122,146	331,482	412.0	493.8	338.0	262.7	348.7	180.9
2,500-100,000.....	165,322	426,841	361.6	448.6	277.4	256.1	344.9	176.3
Rural.....	227,960	623,663	254.3	276.8	225.7	194.8	232.1	150.3
EAST SOUTH CENTRAL								
Kentucky:								
100,000 and over.....	47,210	271,867	693.1	828.9	576.7	348.3	450.3	270.0
2,500-100,000.....	69,661	460,589	390.0	440.2	345.3	300.3	370.3	244.0
Rural.....	97,331	1,898,969	308.5	316.8	298.7	195.1	216.8	170.7
Tennessee:								
100,000 and over.....	221,393	478,694	391.1	429.0	358.3	279.8	377.2	202.1
2,500-100,000.....	61,058	266,061	340.4	452.5	247.0	257.2	351.4	178.0
Rural.....	226,484	1,662,151	258.3	254.5	262.6	172.8	204.3	139.0
Alabama:								
100,000 and over.....	108,961	158,622	461.8	542.8	391.1	277.8	386.1	187.5
2,500-100,000.....	207,119	381,239	472.0	588.4	382.7	298.9	401.3	215.9
Rural.....	667,784	1,309,236	230.8	240.2	221.1	190.7	224.8	154.5
Mississippi:								
2,500-100,000.....	178,344	254,538	293.3	336.3	258.7	284.7	386.6	203.3
Rural.....	899,125	851,789	206.3	211.8	200.3	196.5	234.8	155.2
WEST SOUTH CENTRAL								
Arkansas:								
2,500-100,000.....	105,140	326,770	411.7	472.6	357.3	276.1	370.5	191.6
Rural.....	378,163	1,139,314	149.5	150.9	147.9	139.2	162.9	111.0
Louisiana:								
100,000 and over.....	149,762	344,775	564.5	661.7	493.3	429.4	566.4	331.9
2,500-100,000.....	165,213	320,689	502.6	585.1	434.2	342.2	491.5	215.2
Rural.....	537,166	846,275	318.3	317.5	319.2	233.5	275.8	186.2
Oklahoma ² :								
2,500-100,000.....	232,206	2,104,228	.....	.....	.....	.....	.....	.....
Texas:								
100,000 and over.....	182,192	928,572	501.1	579.6	430.6	298.7	405.6	207.5
2,500-100,000.....	259,628	1,560,997	348.5	370.6	328.4	266.1	349.9	190.2
Rural.....	505,459	2,997,976	207.7	207.9	207.4	172.4	205.4	134.2
WEST NORTH CENTRAL								
Minnesota ²								
2,500-100,000.....	23,318	2,768,982	.....	.....	.....	.....	.....	.....
Iowa:								
100,000 and over.....	6,393	153,426	422.6	455.1	390.1	262.2	323.9	210.7
2,500-100,000.....	9,261	915,151	363.2	420.5	292.5	272.1	337.0	215.7
Rural.....	1,923	1,452,114	633.8	658.2	585.1	190.8	218.5	160.3
Missouri:								
100,000 and over.....	151,086	1,064,140	476.0	497.2	456.6	297.0	378.6	229.2
2,500-100,000.....	40,781	704,689	379.9	418.5	341.3	272.6	352.9	205.4
Rural.....	53,610	1,770,358	234.7	197.0	284.6	193.9	226.5	157.2

See footnotes at end of table.

Appendix table 1. Nonwhite and white mortality from diseases of the heart (all forms) by sex and population-size groups in 28 States—resident age-adjusted¹ mortality per 100,000 population, 1940—Continued

Geographic section, State, and size of city	Population		Nonwhite mortality			White mortality		
	Nonwhite	White	Total	Male	Female	Total	Male	Female
WEST NORTH CENTRAL—con.								
North Dakota ²	10,471	631,464						
South Dakota ²	23,886	619,075						
Nebraska ²	18,210	1,297,624						
Kansas:								
100,000 and over.....	26,848	209,576	394.1	452.1	345.1	241.9	322.3	168.9
2,500-100,000.....	25,871	491,646	322.1	383.5	259.3	269.5	347.3	203.8
Rural.....	13,813	1,033,274	395.8	419.3	362.2	196.0	229.5	158.0
MOUNTAIN								
8 States ²	171,090	3,978,913						
PACIFIC								
3 States ²	362,621	9,370,641						

¹ Adjusted for age by the indirect method to the total population of the United States enumerated 1940.

² Mortality rates omitted for States where less than 90 percent of the nonwhite population are Negro or there are less than 1,000 Negroes.

³ Mortality rates omitted where there are less than 1,000 Negroes in population-size group.

⁴ Less than 90 percent of the nonwhite population are Negro.

Appendix table 2. Negro mortality from five specific forms of diseases of the heart, by sex, age, and urbanization, in the United States and in North and South sections of the eastern United States—resident mortality per 100,000 population, 1940

Age	Male					Female				
	Diseases of the coronary arteries	Acute endocarditis	Chronic affections of the valves and endocardium	Diseases of the myocardium	Other diseases of the heart	Diseases of the coronary arteries	Acute endocarditis	Chronic affections of the valves and endocardium	Diseases of the myocardium	Other diseases of the heart
Total United States										
All ages.....	52.25	2.74	66.08	186.31	50.62	36.78	2.90	62.54	169.95	41.16
Under 5.....	.48	2.41	1.77	3.38	.64	.48	2.07	1.75	3.83	
5-9.....	1.16	1.55	5.13	1.86	2.80	.92	5.37	.92	1.54	
10-14.....	.15	.30	6.65	1.91	1.51	.30	9.56	2.54	1.79	
15-19.....	1.11	.79	7.78	3.49	2.86	1.63	10.68	3.71	4.00	
20-24.....	2.00	2.91	7.99	5.45	5.63	2.95	2.33	11.63	6.36	
25-34.....	12.73	2.71	22.05	20.85	14.44	9.12	2.54	18.76	23.67	11.92
35-44.....	46.13	3.13	38.25	89.82	34.19	35.39	3.09	39.44	93.91	33.15
45-54.....	115.94	4.59	102.95	292.70	80.62	77.79	4.58	98.39	280.29	68.64
55-64.....	177.89	4.43	189.51	612.23	148.29	123.02	6.63	190.86	563.53	123.02
65-74.....	198.88	4.24	292.59	931.20	233.22	143.84	6.70	277.85	783.97	158.13
75 and over.....	293.25	12.33	649.53	2,014.36	470.02	193.32	8.41	506.72	1,766.31	368.63
Urban United States—Cities and towns of 2,500 and over population										
All ages.....	69.48	3.91	69.99	256.10	49.45	44.58	3.46	63.75	220.21	37.04
Under 5.....	.87	3.03	3.04	3.91	.43	1.29	4.29	4.29	5.58	
5-9.....	1.63	7.74	3.26	3.26	.....	.40	8.31	1.19	1.19	
10-14.....	.38	12.20	1.91	1.53	.36	1.08	15.42	2.51	1.79	
15-19.....	1.18	.39	10.24	6.30	4.73	1.00	12.99	3.66	2.00	
20-24.....	1.65	4.95	11.97	9.08	7.02	2.71	3.01	13.84	6.92	5.11
25-34.....	16.07	4.67	26.34	28.77	15.32	10.32	2.80	18.28	125.80	10.17
35-44.....	55.25	4.10	43.54	114.01	36.31	40.95	3.83	41.47	119.54	30.84
45-54.....	147.87	5.74	109.97	389.35	83.55	96.90	5.18	100.07	357.43	66.42
55-64.....	243.40	5.15	197.01	859.07	150.62	151.48	7.94	186.09	744.35	112.90
65-74.....	291.62	7.21	302.95	1,355.04	205.06	176.53	8.02	279.95	1,038.68	139.08
75 and over.....	390.71	21.51	609.37	2,641.77	412.22	232.76	10.35	491.38	2,270.73	305.18

Appendix table 2. *Negro mortality from five specific forms of diseases of the heart, by sex, age, and urbanization, in the United States and in North and South sections of the eastern United States—resident mortality per 100,000 population, 1940—Continued*

Age	Male					Female				
	Diseases of the coronary arteries	Acute endocarditis	Chronic affections of the valves and endocardium	Diseases of the myocardium	Other diseases of the heart	Diseases of the coronary arteries	Acute endocarditis	Chronic affections of the valves and endocardium	Diseases of the myocardium	Other diseases of the heart
Rural United States—Towns of less than 2,500 population and rural areas										
All ages.....	35.90	1.60	61.87	124.66	50.83	27.52	2.26	61.53	114.02	45.64
Under 5.....		.26	2.04	1.02	3.07	.76		.76	.25	2.79
5-9.....	.25	1.51	3.51	1.00	2.51		1.26	3.52	.75	1.76
10-14.....	.25	.25	3.01	1.75	1.50	.26	.26	5.38	2.56	1.79
15-19.....	1.06	1.06	6.11	1.60	1.60	2.14	1.34	8.82	3.74	5.61
20-24.....	2.27	1.30	4.87	2.60	4.55	3.20	1.60	9.28	5.76	9.28
25-34.....	8.87	43	17.08	11.68	13.41	7.35	2.16	19.47	20.55	14.49
35-44.....	32.80	1.71	30.52	54.48	37.09	26.63	1.92	36.24	53.54	36.79
45-54.....	76.65	3.18	94.32	173.79	71.01	52.63	3.79	96.17	178.72	71.56
55-64.....	116.67	3.75	182.49	381.58	146.10	90.73	5.15	196.27	358.43	134.49
65-74.....	134.03	2.16	285.34	634.82	252.92	111.01	5.37	275.74	528.21	177.26
75 and over.....	232.93	6.66	674.39	1,626.07	505.79	159.14	6.72	520.01	1,329.15	423.62
Total North¹										
All ages.....	73.53	2.49	57.78	306.35	34.84	44.09	2.79	59.17	277.70	33.46
Under 5.....		1.12	4.48	1.12	3.36		1.11	7.79		5.56
5-9.....		2.09	9.41	4.18	1.05			10.30	3.09	1.03
10-14.....			13.55	1.94	1.94	.93		26.97	3.72	1.86
15-19.....			15.35	3.07	1.02			19.59	2.80	5.60
20-24.....	1.13	6.81	11.34	5.67	4.54	3.50	3.50	16.61	5.25	
25-34.....	12.31	1.48	31.02	22.16	8.37	4.38	1.20	21.52	23.91	8.37
35-44.....	47.98	2.67	31.99	116.40	21.33	34.42	3.01	38.72	136.38	26.24
45-54.....	137.73	4.57	82.25	387.74	53.53	93.19	2.87	93.18	400.70	48.74
55-64.....	240.87	1.31	121.74	904.56	98.18	128.35	8.56	118.37	817.18	98.40
65-74.....	365.64		231.66	1,808.64	189.80	215.75	5.20	259.93	1,492.03	129.97
75 and over.....	572.25	19.07	639.01	3,948.50	305.20	320.75	7.46	499.78	3,408.92	365.51
Urban North¹—Cities and towns of 2,500 and over population										
All ages.....	70.94	2.73	56.05	297.89	34.27	44.00	2.49	57.43	274.60	32.56
Under 5.....		1.24	3.73	1.24	2.49		1.23	8.62		6.16
5-9.....		1.16	10.45	4.64	1.16			11.41	1.14	1.14
10-14.....			15.22	2.17	2.17	1.03	2.06	28.85	3.09	2.06
15-19.....			16.36	2.34	1.17		2.07	19.67	2.07	5.18
20-24.....	1.29	7.71	12.85	6.43	5.14	2.84	3.78	17.03	4.73	
25-34.....	12.47	1.63	31.45	22.23	8.68	4.68	1.28	19.59	23.42	7.67
35-44.....	46.63	2.91	32.06	117.07	22.23	34.99	2.30	38.68	137.21	25.32
45-54.....	140.96	5.09	78.47	400.37	56.68	94.27	3.12	90.37	398.88	45.19
55-64.....	234.84	1.50	119.66	903.45	98.72	128.05	7.90	115.40	820.48	91.69
65-74.....	333.49		217.92	1,730.17	178.30	208.07	2.89	257.19	1,453.59	127.15
75 and over.....	533.30	23.70	592.56	3,638.30	272.58	325.62		445.59	3,359.04	385.60
Rural North¹—Towns of less than 2,500 population and rural areas										
All ages.....	86.94	.84	66.41	338.55	34.82	44.19	5.40	74.83	303.80	45.01
Under 5.....			11.23		11.23					
5-9.....		10.52							21.27	
10-14.....								9.55	9.55	
15-19.....			8.23	8.23				18.87	9.44	9.44
20-24.....						11.51		11.51	11.51	
25-34.....	10.69		26.73	21.39	5.35			49.61	31.01	18.60
35-44.....	62.42		31.20	109.23	10.40	26.22	13.11	39.32	124.52	39.32
45-54.....	109.18		115.60	276.15	25.69	80.73		125.58	421.60	89.70
55-64.....	283.14		136.32	912.33	94.38	131.14	14.57	145.70	786.83	160.28
65-74.....	541.32		306.75	2,237.46	252.62	284.46	25.86	284.46	1,836.05	155.16
75 and over.....	732.78		830.48	5,227.16	439.67	288.02	57.60	864.06	3,744.24	230.41

See footnotes at end of table.

Appendix table 2. *Negro mortality from five specific forms of diseases of the heart, by sex, age, and urbanization, in the United States and in North and South section of the eastern United States—resident mortality per 100,000 population, 1940—Continued*

Age	Male					Female				
	Diseases of the coronary arteries	Acute endocarditis	Chronic affections of the valves and endocardium	Diseases of the myocardium	Other diseases of the heart	Diseases of the coronary arteries	Acute endocarditis	Chronic affections of the valves and endocardium	Diseases of the myocardium	Other diseases of the heart
Total South ¹										
All ages.....	46.32	2.77	71.94	162.42	56.38	33.59	2.72	65.66	141.31	44.41
Under 5.....		.51	1.77	1.78	3.55	.75	.25	.75	1.25	3.76
5-9.....		1.48	3.46	1.98	3.46		1.22	5.13	.49	2.20
10-14.....		.49	5.83	1.94	1.21		.24	6.52	1.93	1.93
15-19.....	1.27	1.02	7.39	3.82	3.06	1.91	1.44	9.81	4.31	3.35
20-24.....	2.05	2.64	7.91	5.86	6.73	3.07	2.56	9.74	6.66	8.71
25-34.....	13.10	3.01	21.95	21.42	16.82	10.04	2.87	20.56	25.34	13.55
35-44.....	45.86	3.67	40.82	84.38	41.27	31.97	3.48	41.20	78.09	37.71
45-54.....	110.99	4.64	120.88	280.40	89.96	72.70	5.78	105.85	248.82	76.35
55-64.....	158.26	4.61	219.21	548.01	172.60	120.86	4.39	229.08	491.14	140.09
65-74.....	152.42	2.90	305.55	764.98	246.77	116.22	2.34	268.32	614.62	155.22
75 and over.....	216.48	9.31	684.34	1582.83	495.80	154.50	6.10	494.00	1321.41	372.03
Urban South ²—Cities and towns of 2,500 and over population										
All ages.....	68.91	4.58	82.78	243.07	58.69	44.50	4.08	70.54	190.12	39.61
Under 5.....		.97	1.94	4.86	3.89	.96	.96	.96	4.78	4.78
5-9.....		1.82	3.65	3.65	5.47		.88	8.80	.88	1.76
10-14.....		.86	13.75	1.72	.86			7.20		.80
15-19.....	2.62		8.72	9.60	7.85	.71	1.42	8.96	5.69	
20-24.....	1.74	4.36	13.08	11.33	7.85	2.53	3.16	10.11	8.22	7.58
25-34.....	17.76	6.34	26.64	33.83	19.87	12.79	3.37	20.87	30.30	11.11
35-44.....	61.59	5.05	52.51	121.67	46.95	39.14	5.59	45.15	107.09	36.13
45-54.....	167.16	6.81	151.27	401.63	99.84	104.49	8.47	115.09	341.01	75.55
55-64.....	240.53	6.01	264.58	882.43	189.41	164.38	8.29	256.92	721.04	132.61
65-74.....	251.99	7.20	331.19	1199.96	225.59	158.99	6.04	289.80	800.97	134.84
75 and over.....	291.37	25.71	617.02	2073.87	437.06	169.11	11.66	466.50	1580.27	268.24
Rural South ²—Towns of less than 2,500 population and rural areas										
All ages.....	33.27	1.70	65.09	119.48	54.44	25.75	1.72	62.26	107.79	47.41
Under 5.....		.34	1.72	.69	3.43	.68		.68		3.40
5-9.....		1.35	3.39	1.35	2.71		1.35	3.72	.34	2.37
10-14.....		.34	2.71	2.03	1.35		.35	6.23	2.77	2.42
15-19.....	.72	1.44	6.84	1.44	1.08	2.52	1.44	9.74	3.60	5.05
20-24.....	2.20	1.76	5.29	3.09	6.17	3.45	2.15	9.48	5.60	9.48
25-34.....	9.74	.61	18.58	12.48	14.61	7.57	2.42	20.27	20.88	15.74
35-44.....	32.77	2.52	31.08	53.35	36.55	25.45	1.57	37.59	51.69	39.16
45-54.....	72.16	3.14	99.87	196.60	83.14	48.63	3.74	98.88	179.04	76.96
55-64.....	115.75	3.88	195.75	375.20	163.91	92.13	1.82	210.71	339.32	145.03
65-74.....	109.25	1.04	294.45	576.40	255.95	89.15		254.72	496.70	168.11
75 and over.....	188.55	3.20	709.45	1399.72	517.70	146.69	3.12	508.73	1182.86	427.58

NOTE.—White mortality rates are given in appendix table 2 of reference (13).
¹ North: New England, Middle Atlantic, and East North Central regions.
² South: South Atlantic and East South Central regions.

Appendix table 3. *Negro mortality from acute rheumatic fever, syphilitic heart disease, and congenital heart disease by sex, age, and urbanization in the United States—resident mortality per 100,000 population, 1940*

Age	Male			Female		
	Acute rheumatic fever	Syphilitic heart disease	Congenital heart disease	Acute rheumatic fever	Syphilitic heart disease	Congenital heart disease
Total United States						
All ages.....	2.37	26.06	2.68	3.09	8.02	2.00
Under 5.....	1.29	-----	28.95	1.75	-----	22.00
5-9.....	2.17	-----	.93	4.61	-----	.61
10-14.....	3.63	.30	1.21	4.93	.15	.60
15-19.....	3.01	.16	.48	2.67	1.48	.30
20-24.....	1.46	2.36	.55	1.86	2.17	.47
25-34.....	1.80	16.04	.10	2.19	5.26	.18
35-44.....	1.63	42.65	.12	2.66	11.62	-----
45-54.....	1.75	71.59	.48	1.31	22.55	.33
55-64.....	3.04	68.89	-----	5.13	19.60	-----
65-74.....	3.39	55.97	-----	4.02	14.74	-----
75 and over.....	10.96	30.15	-----	12.01	13.21	-----
Urban United States—Cities and towns of 2,500 and over population						
All ages.....	2.30	38.06	3.95	3.39	10.48	3.22
Under 5.....	1.30	-----	44.28	2.15	-----	36.50
5-9.....	4.07	-----	1.22	7.92	-----	.79
10-14.....	3.81	.38	.76	5.38	-----	.72
15-19.....	4.33	-----	.39	3.00	1.67	-----
20-24.....	1.65	4.13	.83	2.11	1.80	.60
25-34.....	1.87	23.54	.19	2.51	6.49	.29
35-44.....	1.76	57.59	.20	3.31	15.16	-----
45-54.....	1.15	101.93	.57	.86	31.06	.58
55-64.....	1.72	108.82	-----	3.97	24.40	-----
65-74.....	3.09	85.53	-----	3.57	17.83	-----
75 and over.....	-----	46.60	-----	7.76	25.86	-----
Rural United States—Towns of less than 2,500 population and rural areas						
All ages.....	2.45	12.90	1.91	2.85	4.85	1.24
Under 5.....	1.28	-----	19.93	1.52	-----	13.43
5-9.....	1.00	-----	.75	2.51	-----	.50
10-14.....	3.50	.25	1.50	4.87	.26	.51
15-19.....	2.13	.27	.53	2.40	1.34	.53
20-24.....	1.30	.97	.32	1.60	2.56	.32
25-34.....	1.74	7.35	-----	1.52	3.46	-----
35-44.....	1.43	20.82	-----	1.64	6.04	-----
45-54.....	2.47	34.26	.35	1.90	11.36	-----
55-64.....	4.28	31.57	-----	6.43	14.16	-----
65-74.....	3.60	35.31	-----	4.48	11.64	-----
75 and over.....	17.75	19.97	-----	15.69	2.24	-----

NOTE.—White mortality rates are given in appendix table 2 of reference (13).

Incidence of Disease

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring

UNITED STATES

Reports From States for Week Ended December 30, 1950

During 1950 the incidence of the communicable diseases reported weekly by States was generally favorable in comparison with 1949 or the 5-year (1945-49) median.

Three diseases for which intensive preventive or public health measures are available and are widely used, namely diphtheria, smallpox, and the typhoid-paratyphoid group, were reported in smaller numbers in 1950 as compared with 1949 and the 5-year median. However, whooping cough, a disease against which immunization is extensively used, was reported in larger numbers. The total number of cases of diphtheria, 6,535, smallpox, 34, and typhoid and paratyphoid fever, 3,424, for the 52 weeks ended December 30, 1950, were gratifyingly low when compared with some previous years. In 1930, totals of 66,526 cases of diphtheria, 48,907 cases of smallpox, and 27,201 cases of typhoid and paratyphoid fever were reported.

Comparative Data for Cases of Specified Reportable Diseases: United States

[Numbers after diseases are International List numbers, 1948 revision]

Disease	Total for week ended—		5-year median 1945-49	Seasonal low week	Cumulative total since seasonal low week		5-year median 1944-45 through 1948-49	Cumulative total for calendar year		5-year median 1945-49
	Dec. 30, 1950	Dec. 31, 1949			1949-50	1948-49		1950	1949	
Anthrax (062)		1	(¹)	(¹)	(¹)	(¹)	(¹)	45	53	(¹)
Diphtheria (055)	113	158	244	27th	2,907	4,271	6,214	6,035	8,039	12,511
Acute infectious encephalitis (082)	15	11	5	(¹)	(¹)	(¹)	(¹)	1,009	761	620
Influenza (480-483)	3,632	2,620	2,821	30th	38,407	30,530	36,270	284,666	106,397	223,172
Measles (085)	4,101	2,778	2,778	35th	28,689	19,130	26,124	316,860	607,648	604,027
Meningococcal meningitis (057.0)	78	69	69	37th	961	913	913	3,760	3,429	3,429
Pneumonia (480-493)	1,306	1,704		(¹)	(¹)	(¹)	(¹)	279,942	77,691	
Acute poliomyelitis (080)	238	195	108	11th	32,213	41,453	24,797	233,344	42,366	25,264
Rocky Mountain spotted fever (104)	1			(¹)	(¹)	(¹)	(¹)	459	560	560
Scarlet fever (050)	1,452	1,214	1,873	32d	15,654	16,439	22,544	55,824	74,105	83,300
Smallpox (084)			1	35th	8	7	22	34	48	169
Tularemia (059)	19	32	32	(¹)	(¹)	(¹)	(¹)	897	1,138	1,138
Typhoid and paratyphoid fever (040, 041) ²	29	29	39	11th	2,915	3,373	3,409	3,424	3,861	3,894
Whooping cough (056)	1,387	1,470	1,470	39th	21,602	21,536	24,337	118,797	68,138	100,212

¹ Not computed.

² Additions: Pneumonia, Indiana, week ended December 16, 7 cases; poliomyelitis, Nebraska, 14 delayed cases.

³ Including cases reported as salmonellosis.

⁴ Deduction: New Hampshire, week ended Nov. 25, 1 case.

In 1940, the totals were 15,536, 2,795, and 9,809, respectively, for the three diseases. Whooping cough has shown no comparable decrease in numbers, 166,914 cases being reported in 1930, 183,866 in 1940, and 118,797 in 52 weeks of 1950.

Measles, poliomyelitis, Rocky Mountain spotted fever, scarlet fever, and tularemia were reported in fewer numbers in 1950 as compared with 1949.

The total number of influenza cases in 1950 was greater than in 1949 because of epidemic prevalence in many parts of the country in 1950. Infectious encephalitis, meningococcal meningitis, pneumonia, and rabies in animals were reported in slightly greater numbers in 1950 as compared with 1949.

Report of Epidemics

Upper respiratory diseases—cause undetermined

Dr. Carl C. Kuehn, Director, Division of Preventive Medicine, Louisiana State Department of Health, reports that an epidemic of an undiagnosed febrile disease occurred late in November 1950 in the vicinity of Ruston, La. He estimated that there were two to three hundred cases of an upper respiratory infection which were manifested by fever, headache, irritability, and splenic and hepatic enlargement which were associated with abdominal pain. There was also a generalized lymphadenopathy and sore throat. A few cases had a measles-like rash, and an occasional patient had vesicular lesions. The average white count was between 15,000 and 20,000 leucocytes.

An investigation is being conducted to determine the cause of this outbreak.

Deaths During Week Ended Dec. 30, 1950

	<i>Week ended Dec. 30, 1950</i>	<i>Corresponding week, 1949</i>
Data for 93 large cities of the United States:		
Total deaths	9, 891	10, 028
Median for 3 prior years.....	10, 439	-----
Total deaths for 1950	476, 646	476, 920
Deaths under 1 year of age.....	585	649
Median for 3 prior years.....	724	-----
Deaths under 1 year of age, for 1950.....	32, 256	33, 699
Data from industrial insurance companies:		
Policies in force	69, 564, 916	69, 878, 197
Number of death claims.....	11, 762	9, 543
Death claims per 1,000 policies in force, annual rate.....	8. 8	7. 1
Death claims per 1,000 policies for 1950.....	9. 2	9. 1

**Reported Cases of Selected Communicable Diseases: United States,
Week Ended Dec. 30, 1950**

[Numbers under diseases are International List numbers, 1948 revision]

Area	Diphtheria	Encephalitis, infectious	Influenza	Measles	Meningitis, meningococcal	Pneumonia	Polio-myelitis
	(055)	(082)	(480-483)	(085)	(057.0)	(490-493)	(080)
United States	113	15	3, 632	4, 101	78	1, 306	238
New England	4	1	3	181	5	42	14
Maine.....				1	1	15	
New Hampshire.....				2			
Vermont.....				105			
Massachusetts.....	4	1		63	2		7
Rhode Island.....				2	1	2	
Connecticut.....				7	1	25	7
Middle Atlantic	12	2	3	604	16	221	34
New York.....	7	1	1	195	12	163	26
New Jersey.....	2	1	2	112		32	4
Pennsylvania.....	3			296	4	26	4
East North Central	15	1	118	1, 371	16	134	41
Ohio.....	8		4	540	6		19
Indiana.....	5	1	66	36		18	6
Illinois.....	2		4	357	3	66	2
Michigan.....				118	3	40	8
Wisconsin.....			44	320	4	10	6
West North Central	6	1	9	285	3	83	10
Minnesota.....	2			22		19	1
Iowa.....				2	1	4	1
Missouri.....	2		5	140	1	21	3
North Dakota.....			4	3		19	
South Dakota.....		1		3			
Nebraska.....	1						4
Kansas.....	1			115	1	20	1
South Atlantic	27	1	439	213	8	195	26
Delaware.....				5			
Maryland.....			2	5	3	18	5
District of Columbia.....		1	2	9		22	
Virginia.....	8		274	108	2	95	3
West Virginia.....	2		34	5		9	1
North Carolina.....	6			39			3
South Carolina.....	4		80	4		10	1
Georgia.....	3		42	37	1	21	1
Florida.....	4		5	1	2	20	12
East South Central	11	1	92	150	10	68	13
Kentucky.....	2			60	3	13	4
Tennessee.....	3		30	40	6		5
Alabama.....	3		54		1	26	3
Mississippi.....	3	1	8	50		29	1
West South Central	31	2	2, 700	488	9	453	20
Arkansas.....	8	1	219	74	1	56	4
Louisiana.....	2			78	1	19	8
Oklahoma.....	6	1	104	50	1	9	
Texas.....	15		2, 377	286	6	369	8
Mountain	5	1	244	370	2	52	14
Montana.....			20				
Idaho.....			2	19		5	
Wyoming.....				101			1
Colorado.....	1	1	27	202		25	5
New Mexico.....	1			2		2	6
Arizona.....			195	23	1	20	1
Utah.....	3			23	1		1
Nevada.....							
Pacific	2	5	24	439	9	58	66
Washington.....				178	4	5	12
Oregon.....	1		13	21	1	23	6
California.....	1	5	11	240	4	30	48
Alaska.....					1	1	
Hawaii.....			11				

¹ New York City only.

**Reported Cases of Selected Communicable Diseases: United States,
Week Ended Dec. 30, 1950—Continued**

[Numbers under diseases are International List numbers, 1948 revision]

Area	Rocky Mountain spotted fever (104)	Scarlet fever (050)	Smallpox (084)	Tularemia (059)	Typhoid and paratyphoid fever ¹ (040, 041)	Whooping cough (056)	Rabies in animals
United States	1	1,452		19	29	1,387	98
New England	171				2	258	
Maine.....	16					30	
New Hampshire.....	7						
Vermont.....	5					116	
Massachusetts.....	114				1	80	
Rhode Island.....	5				1	6	
Connecticut.....	24					26	
Middle Atlantic	204			1	4	197	8
New York.....	² 123			1	3	70	8
New Jersey.....	17				1	78	
Pennsylvania.....	64					49	
East North Central	497			8	5	328	22
Ohio.....	244			1	3	92	7
Indiana.....	30			2	2	28	6
Illinois.....	58			5		15	2
Michigan.....	146					110	7
Wisconsin.....	19					83	
West North Central	71			2	2	47	5
Minnesota.....	14					6	
Iowa.....	5				1	3	5
Missouri.....	12			2	1	5	
North Dakota.....	4					3	
South Dakota.....							
Nebraska.....	13					1	
Kansas.....	23					29	
South Atlantic	1	118		2	4	142	14
Delaware.....		1				6	
Maryland.....		6		1	1	12	
District of Columbia.....		10			2	5	
Virginia.....		37				58	2
West Virginia.....						17	1
North Carolina.....	1	46		1		21	
South Carolina.....		4			1	10	8
Georgia.....		10				7	3
Florida.....		4				6	
East South Central		100		1	2	38	18
Kentucky.....		26				4	4
Tennessee.....		60		1	2	10	10
Alabama.....		11				19	3
Mississippi.....		3				5	1
West South Central		74		4	6	210	27
Arkansas.....		3		3	1	69	3
Louisiana.....		3				1	
Oklahoma.....		16				3	2
Texas.....		52		1	5	137	22
Mountain		19		1		115	
Montana.....		1				23	
Idaho.....		2				3	
Wyoming.....						7	
Colorado.....		6				10	
New Mexico.....		5				35	
Arizona.....		5				37	
Utah.....				4			
Nevada.....							
Pacific		198			4	52	4
Washington.....		62				14	
Oregon.....		48				7	
California.....		88			4	31	4
Alaska.....						2	
Hawaii.....						8	

¹ Including cases reported as salmonellosis.

² Including cases reported as streptococcal sore throat.

FOREIGN REPORTS

CANADA

Reported Cases of Certain Diseases—Week Ended Dec. 9, 1950

Disease	New-found-land	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total
Bruceellosis						1					1
Chickenpox	5		56	1	174	528	51	177	147	147	1,286
Diphtheria			1		2					1	4
Dysentery, bacillary					7	8					15
German measles					4	59		8	18	93	182
Influenza			14				1			1	16
Measles	12		15		281	1,161	36	11	24	44	1,584
Meningitis, meningococcal				1		2	1			1	5
Mumps	10		13		125	353	22	144	229	153	1,049
Poliomyelitis								2	1		3
Scarlet fever	1			2	70	57	8	20	70	43	271
Tuberculosis (all forms)	2		10	14	74	23	33	11	1	51	219
Typhoid and paratyphoid fever					5	1	1	6			13
Veneral diseases:											
Gonorrhoea	6		5	3	87	53	29	20	39	57	299
Syphilis	6		6	5	71	18	4	3	3	12	128
Primary			1		4	5		2			12
Secondary			1	1	5	3					10
Other	6		4	4	62	10	4	1	3	12	106
Whooping cough	12		14	11	32	108	36	1	2	36	252

REPORTS OF CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER RECEIVED DURING THE CURRENT WEEK

The following reports include only items of unusual incidence or special interest and the occurrence of these diseases, except yellow fever, in localities which had not recently reported cases. All reports of yellow fever are published currently. A table showing the accumulated figures for these diseases for the year to date is published in the PUBLIC HEALTH REPORTS for the last Friday in each month.

Cholera

India. Cholera was reported for cities in India during the week ended December 16, 1950, as follows: Calcutta 18 cases, Madras 14, Negapatam 9, and Tuticorin 18. For the week ended December 23, 59 cases were reported in Calcutta.

Pakistan. Reported cases of cholera in East Bengal Province almost doubled from 335 for the week ended November 18, 1950, to 633 for the week ended November 25. For the week ended December 16, two cases were reported in Dacca.

Plague

India. One imported fatal case of plague was reported in Allahabad for the week ended December 16, 1950. This is the first case since June 3, when one case was reported.

Thailand. During the week ended December 9, 1950, one case of plague was reported in Thailand, and one fatal case was reported for the week ended December 2.

Smallpox

Burma. One case of smallpox was reported in Moulmein for the week ended December 23, 1950. For the week ended December 16, eight cases were reported.

India. For the week ended December 23, 1950, 324 and 16 cases were reported in Calcutta and Bombay, respectively. During the previous week 238 cases were reported in Calcutta and 17 in Bombay. Nagpur reported 56 cases for the week ended December 16 as compared with 177 for the previous week.

Typhus Fever

Iraq. During the week ended December 23, 1950, two cases of typhus fever were reported in Baghdad.

Turkey. The incidence of typhus fever was 11 cases for the week ended December 23, 1950, which is the same number reported for the previous week. Istanbul continued to report one case each week.

Yellow Fever

Colombia. One fatal case of jungle yellow fever was reported in Landazuri on November 4, 1950, and in Cuesta Rica one fatal case was reported November 19. Both cases were in Santander Department. On November 30, one fatal case was reported in Chisu, Boyaca Department.

CDC Laboratory Training Courses, 1951

The laboratory training courses given by the Communicable Disease Center of the Public Health Service have been scheduled for 1951.

Information and application forms should be requested from the Officer in Charge, Laboratory Training Services, Communicable Disease Center, Public Health Service, P. O. Box 185, Chamblee, Ga.

The schedule of the training courses in laboratory diagnosis follows:

Syphilis. Feb. 12-23; Mar. 12-23; Apr. 16-27; June 4-15; Sept. 10-21; and Oct. 22-Nov. 2.

Microbiology for public health nurses. Feb. 26-Mar. 2 and Aug. 27-31.

Bacterial diseases: general bacteriology, part 1. Feb. 26-Mar. 9 and Aug. 27-Sept. 7.

Parasitic diseases. Part 1. Intestinal parasites. Mar. 5-23 and Sept. 3-21.

Bacterial diseases: general bacteriology, part 2. Mar. 12-23 and Sept. 10-21.

Parasitic diseases. Part 2. Blood parasites. Mar. 26-Apr. 13 and Sept. 24-Oct. 12.

Enteric diseases. Part 1. Introductory enteric bacteriology. Mar. 26-30 and Sept. 24-28.

Enteric diseases. Part 2. Advanced enteric bacteriology. Apr. 2-13 and Oct. 1-12.

Mycotic diseases. Part 1. Cutaneous and subcutaneous fungi. Apr. 16-27 and Nov. 5-16.

Tuberculosis. Apr. 16-27; Apr. 30-May 11; Nov. 5-16; and Nov. 19-30.

Virus diseases. Apr. 16-May 11 and Sept. 3-28.

Mycotic diseases. Part 2. Systemic fungi. Apr. 30-May 11 and Nov. 19-30.

Venereal diseases (directors). May 7-11.

Mycotic diseases (directors). May 14-18 and Oct. 29-Nov. 2.

Tuberculosis (directors). May 14-18 and Oct. 29-Nov. 2.

Treponema pallidum immobilization (directors). May 14-18.

Rabies. May 14-18 and Oct. 1-5.

Clinical chemistry. Part 1. Introductory and general procedures. May 14-18 and Oct. 29-Nov. 2.

Parasitic diseases (directors). May 21-25 and Oct. 22-26.

Bacterial diseases (directors). May 21-25 and Oct. 22-26.

Virus diseases (directors). May 21-25 and Oct. 8-12.

Clinical chemistry. Part 2. Quantitative analyses. May 21-June 1 and Nov. 5-16.

Preparation and standardization of serologic reagents used in the laboratory diagnosis of syphilis. Nov. 5-23.

The following courses will be given by special arrangement:

Laboratory diagnosis of malaria. 2 weeks.

Identification of medically important arthropods. 2 weeks.

Typing of *Corynebacterium diphtheriae*. 1 week.

Phage typing of *Salmonella typhosa*. 1 week.
Serologic diagnosis of rickettsial diseases. 1 week.
Virus isolation and identification techniques. 2 to 4 weeks.
Laboratory diagnosis of influenza. 1 week.
Advanced quantitative analyses in clinical chemistry. 1 week.
Toxicology. 1 week.